

APPENDIX 1**DIVING MEDICAL EXAM OVERVIEW FOR THE EXAMINING PHYSICIAN**

TO THE EXAMINING PHYSICIAN:

This person, _____, requires a medical examination to assess their fitness for certification as a Scientific Diver for the California Department of Fish and Game. His /her answers on the Diving Medical History Form (attached), may indicate potential health or safety risks as noted. Your evaluation is requested on the attached SCUBA Diving Fitness Medical Evaluation Report. If you have questions about diving medicine, you may wish to consult one of the references on the attached list. Please contact the undersigned Diving Safety Officer if you have any questions or concerns about diving medicine or the California Department of Fish and Game standards. Thank you for your assistance.

Diving Safety Officer_____
Date_____
Printed Name_____
Phone Number

SCUBA and other modes of compressed-gas diving can be strenuous and hazardous. A special risk is present if the middle ear, sinuses or lung segments do not readily equalize air pressure changes. The most common cause of distress is Eustachian insufficiency. Most fatalities involve deficiencies in prudence, judgement, emotional stability or physical fitness. Please consult the following list of conditions that usually restrict candidates from diving.

(Adapted from Bove, 1998. bracketed numbers are pages in Bove)

1. Abnormalities of the tympanic membrane, such as perforation, presence of a monomeric membrane, or inability to autoinflate the middle ears.[5,7,8,9]
2. Vertigo including Meniere's Disease.[13]
3. Stapedectomy or middle ear reconstructive surgery.[11]
4. Recent ocular surgery.[15,18,19]
5. Psychiatric disorders including claustrophobia, suicidal ideation, psychosis, anxiety states, untreated depression.[20-23]
6. Substance abuse, including alcohol.[24-25]
7. Episodic loss of consciousness.[1,26,27]
8. History of seizure.[27,28]
9. History of stroke or a fixed neurological deficit.[29,30]
10. Recurring neurologic disorders, including transient ischemic attacks.[29,30]
11. History of intracranial aneurysm, other vascular malformation or intracranial hemorrhage.[31]
12. History of neurological decompression illness with residual deficit.[29,30]
13. Head injury with sequelae.[26,27]
14. Hematologic disorders including coagulopathies.[41,42]
15. Evidence of coronary artery disease or high risk for coronary artery disease¹. [33-35]
16. Atrial septal defects.[39]
17. Significant valvular heart disease – isolated mitral valve prolapse is not disqualifying.[38]
18. Significant cardiac rhythm or conduction abnormalities.[36-37]
19. Implanted cardiac pacemakers and cardiac defibrillators (ICD).[39,40]
20. Inadequate exercise tolerance.[34]
21. Severe hypertension.[35]
22. History of spontaneous or traumatic pneumothorax.[45]
23. Asthma². [42-44]

24. Chronic pulmonary disease, including radiographic evidence of pulmonary blebs, bullae or cysts.[45,46]
25. Diabetes mellitus.[46-47]
26. Pregnancy.[56]

¹ “Assessment of Cardiovascular Risk by Use of Multiple-Risk-Factor Assessment Equations.” Grundy et al. 1999. AHA/ACC Scientific Statement. <http://www.acc.org/clinical/consensus/risk/risk1999.pdf>

² “Are Asthmatics Fit to Dive?” DH Elliot, ed. 1996. Undersea Hyperbaric Medical Society, Kensington, MD.

SELECTED REFERENCES IN DIVING MEDICINE

Most of these are available from Best Publishing Company, P.O. Box 30100, Flagstaff, AZ 86003-0100, the Divers Alert Network (DAN), or the Undersea and Hyperbaric Medical Association (UHMS), Bethesda, MD.

ACC/AHA Guidelines for Exercise Testing. A report of the American College of Cardiology / American Heart Association Task Force on Practice Guidelines (Committee on Exercise Testing). RJ Gibbons, et al. 1997. Journal of the American College of Cardiology. 30:260-311.
<http://www.acc.org/clinical/guidelines/exercise/exercise.pdf>

Alert Diver Magazine; Articles on diving medicine
<http://www.diversalertnetwork.org/medical/articles/index.asp>

“Are Asthmatics Fit to Dive?” DH Elliot, ed. 1996. Undersea Hyperbaric Medical Society, Kensington, MD.

“Assessment of Cardiovascular Risk by Use of Multiple-Risk-Factor Assessment Equations.” Grundy et al. 1999. AHA/ACC Scientific Statement. <http://www.acc.org/clinical/consensus/risk/risk1999.pdf>

Diving Medicine, Third Edition, 1997. A. Bove and J. Davis. W.B. Saunders Company, Philadelphia.

Diving and Subaquatic Medicine, Third Edition, 1994. C. Edmonds, C. Lowery and J. Pennefather. Butterworth-Heinemann Ltd. Oxford.

Medical Examination of Sport SCUBA Divers, 1998. Alfred Bove, M.D., Ph.D. (ed.) Medical Seminars, Inc. San Antonio, TX.

NOAA Diving Manual, Fourth Edition, Best Publishing Company, Flagstaff, AZ.

U.S. Navy Diving Manual. Best Publishing Company, Flagstaff, AZ.